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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,464	03/09/2001	Edward J. Bawolek	42390P4290DC	7263
8791	7590	07/23/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR LOS ANGELES, CA 90025			DIAZ, JOSE R	
			ART UNIT	PAPER NUMBER
			2815	

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/802,464

Applicant(s)

BAWOLEK ET AL.

Examiner

José R. Díaz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 23-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishigaki et al. (US Patent No. 4,870,483).

Regarding claims 23, Nishigaki et al. teaches a method comprising:

exposing a plurality of photodiodes (11A, 11B and 11C) of an image sensor (20) (see fig. 4) to a light source (see col. 4, line 64: "light-receiving area");

modifying a light receiving area (b) of a first photodiode (11C) and a second photodiode (11A or 11B) (see fig. 4) by the use of one or more light shields (see col. 4, lines 11-21), such that, for a given size of light receiving area, a first photodiode (11C) is exposed to a greater amount of incident light than a second photodiode (11A or 11B) (see fig. 4 and col. 4, lines 63-68).

Regarding claims 24 and 27, Nishigaki et al. further teaches that the step of modifying the light receiving area comprises modifying on the basis of a responsivity of a color (R, G, B) assigned to one of the first photodiode (Blue) and the second photodiode (Red or Green) (see col. 4, lines 64-66).

Regarding claims 25 and 28, Nishigaki et al. further teaches that the step of modifying the light receiving area comprises masking a portion of one of the first

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photodiode and the second photodiode from incident light (consider the portions of the photocell 20 masked by the shield layer (i.e. a and d) as shown in figure 4 and disclosed in col. 4, lines 11-35)

Regarding claim 26, Nishigaki et al. teaches a method comprising:

providing an image sensor comprising a plurality of pixels (11A, 11B and 11C) (see fig. 4);

modifying a light receiving area (b) of alternate pixels (11A, 11B and 11C) (see fig. 4) by the use of one or more light shields (see col. 4, lines 11-21), such that, for a given size of light receiving area, a first pixel (11C) is exposed to a greater amount of incident light than a second pixel (11A or 11B) (see fig. 4 and col. 4, lines 63-68); and

capturing an incident light (col. 4, lines 66-68).

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 23-28 have been considered but are moot in view of the new ground of rejection.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Perregaux et al. (US Pat. No. 5,119,181) discloses photodiodes (65-67) with adjusted active area (see fig. 9); and Shinji (US Pat. No. 5,578,842) discloses exposing a first pixel area (6) located beneath micro lens (19) to a greater

amount of incident light (20) than a second pixel area (6) not having the micro lens (19) (see fig. 9).

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

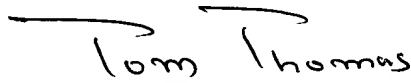
### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to José R. Díaz whose telephone number is (571) 272-1727. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRD  
7/20/04

  
TOM THOMAS  
SUPERVISORY PATENT EXAMINER  
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